

**NWS FORM E-5**

(11-88)

(PRES. by NWS Instruction 10-924)

**U.S. DEPARTMENT OF COMMERCE****NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION****NATIONAL WEATHER SERVICE****HYDROLOGIC SERVICE AREA (HSA)****WFO Jackson, Mississippi****MONTHLY REPORT OF HYDROLOGIC CONDITIONS**

REPORT FOR:

MONTH YEAR

**May 2017**

SIGNATURE

**Bill Parker, Meteorologist In-Charge**

DATE

**06/14/2017**

TO: Hydrometeorological Information Center, W/OH2  
NOAA / National Weather Service  
1325 East West Highway, Room 7230  
Silver Spring, MD 20910-3283

*When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)*



An X inside this box indicates that no river flooding occurred within this Hydrologic Service Area.

**Synopsis**

This year May was slightly cooler than normal and, overall, pretty normal with regards to rainfall. All climate sites, except for Meridian, recorded between one to two degrees less than their normal monthly temperatures. Meridian recorded an about average monthly temperature. In regards to precipitation, Jackson, Hattiesburg, and Vicksburg recorded a total of at least 6" of rainfall throughout the month. This is about 2" above normal rainfall for each of these sites. The other three sites (Greenville, Greenwood, and Meridian) each measured below normal monthly rainfall totals.

**Weather Highlights**

High pressure settled into the Southeast after this frontal passage, but a low pressure system quickly formed in Texas, pushed northeast through the mid-Mississippi Valley and brought a bit more rain to the HSA on the 4<sup>th</sup>. The HSA's southern tier of counties and parishes received the greatest rainfall totals with amounts up to 1.75" noted.

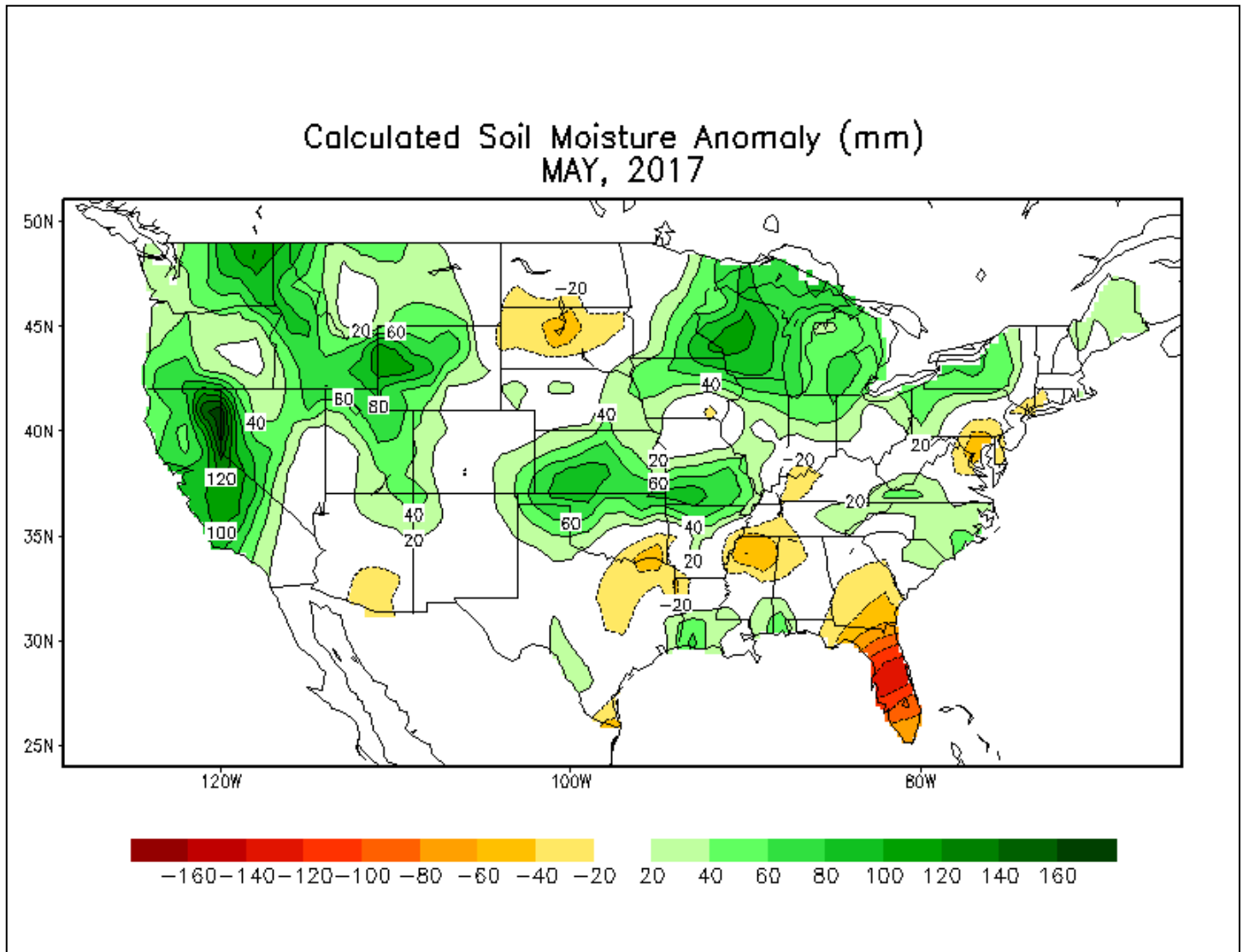
The next system to affect the HSA came on the 12<sup>th</sup> and 13<sup>th</sup>. An upper low pressure moved directly over the HSA from the west-northwest. This system brought scattered rainfall to the majority of the area with half inch totals most common but amounts up to 1.5" were noted in isolated locations.

The never-ending pattern of high and low pressure systems continued with high pressure settling again over the Southeast for about a week. The next system was a frontal passage on the 21<sup>st</sup> and 22<sup>nd</sup>. This system brought some pleasant temperatures to the HSA. Rainfall totals were scattered again with the highest amounts of up to 4" recorded in the upper Pearl River basin. Directly following this system on the 23<sup>rd</sup>, a low pressure formed along the frontal boundary that got stuck on the Gulf Coast. This system then dropped heavy rainfall in the southeast part of the HSA. Here, rainfall totals of up to 3.5" were recorded.

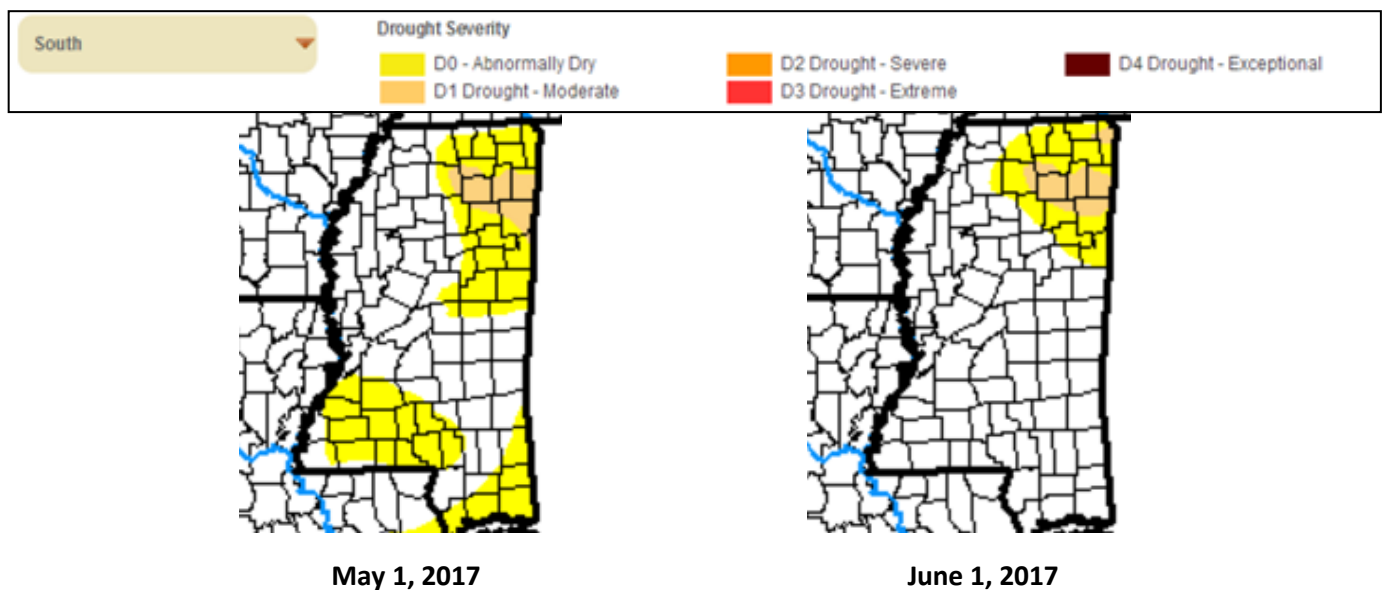
The last significant system of the month came on the 29<sup>th</sup> as one more front passed through the area. The highest rainfall totals of up to 2.5" were noted west of I-55 and along I-20. The majority of the rest of the HSA saw rainfall totals of at least .25".

## River and Soil Conditions

### Soil Moisture Map:

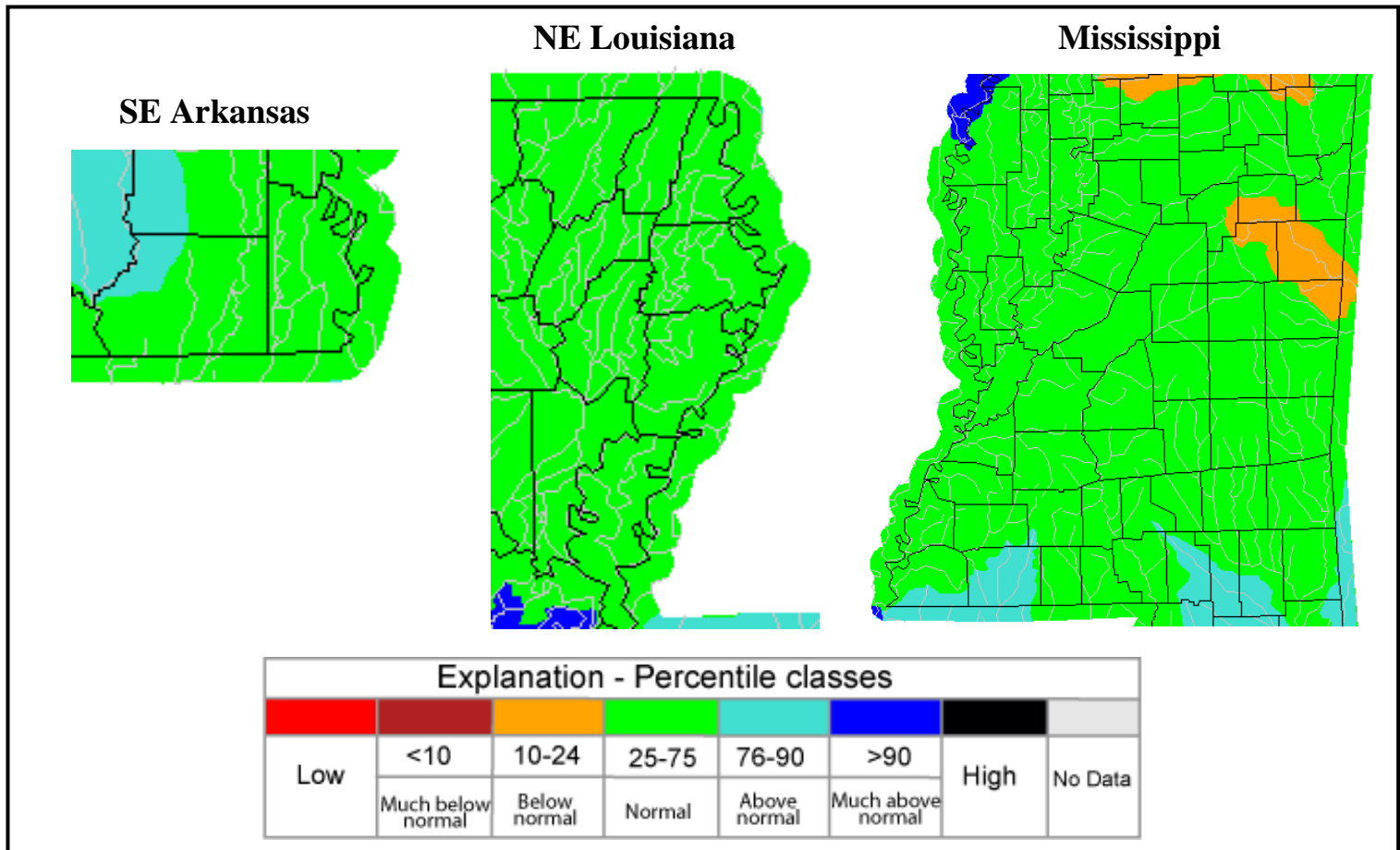


### Drought Comparison:



**Streamflow:**

The United States Geological Survey's (USGS) May 2017 river streamflow records were compared with all historical May streamflow records. Normal streamflow was seen throughout most of the HSA. Only above normal streamflow was experienced on the Black Creek basin in Lamar and Forrest Counties. Below normal streamflow was experienced on the Noxubee River basin in the northeast part of the HSA.

**River Conditions:**

The Mississippi River rose above flood at all forecast points within the HSA beginning on the 9<sup>th</sup> and remaining above flood stage for the rest of the month. The Yazoo River at Yazoo rose above flood stage on the 22<sup>nd</sup> and dropped below on the 30<sup>th</sup>. This was due to rising backwater from the cresting Mississippi River at Vicksburg. All other rivers locations experienced little change to minor rises during the month. The most significant below flood stage rise was on Black Creek in Lamar and southern Forrest Counties. Heavy rainfall from 2 ½" to 5+" produced a rise that just missed going above flood stage.

**Climatic Outlook and Flood Potential:**

The climatic outlook shows good chances for above normal temperatures over the next three months for the whole HSA. In regards to precipitation, the outlook indicates equal chances for above, normal or below regular rainfall for the whole HSA. Thus, based on current soil moisture, streamflow, and the 3-month climate outlook, the flood potentials are thus:

Pearl River System: Normal.

Yazoo River System: Normal.

Big Black River System: Normal.

Homochitto River System: Normal.

Pascagoula River System: Normal.

Northeast LA and Southeast AR: Normal.

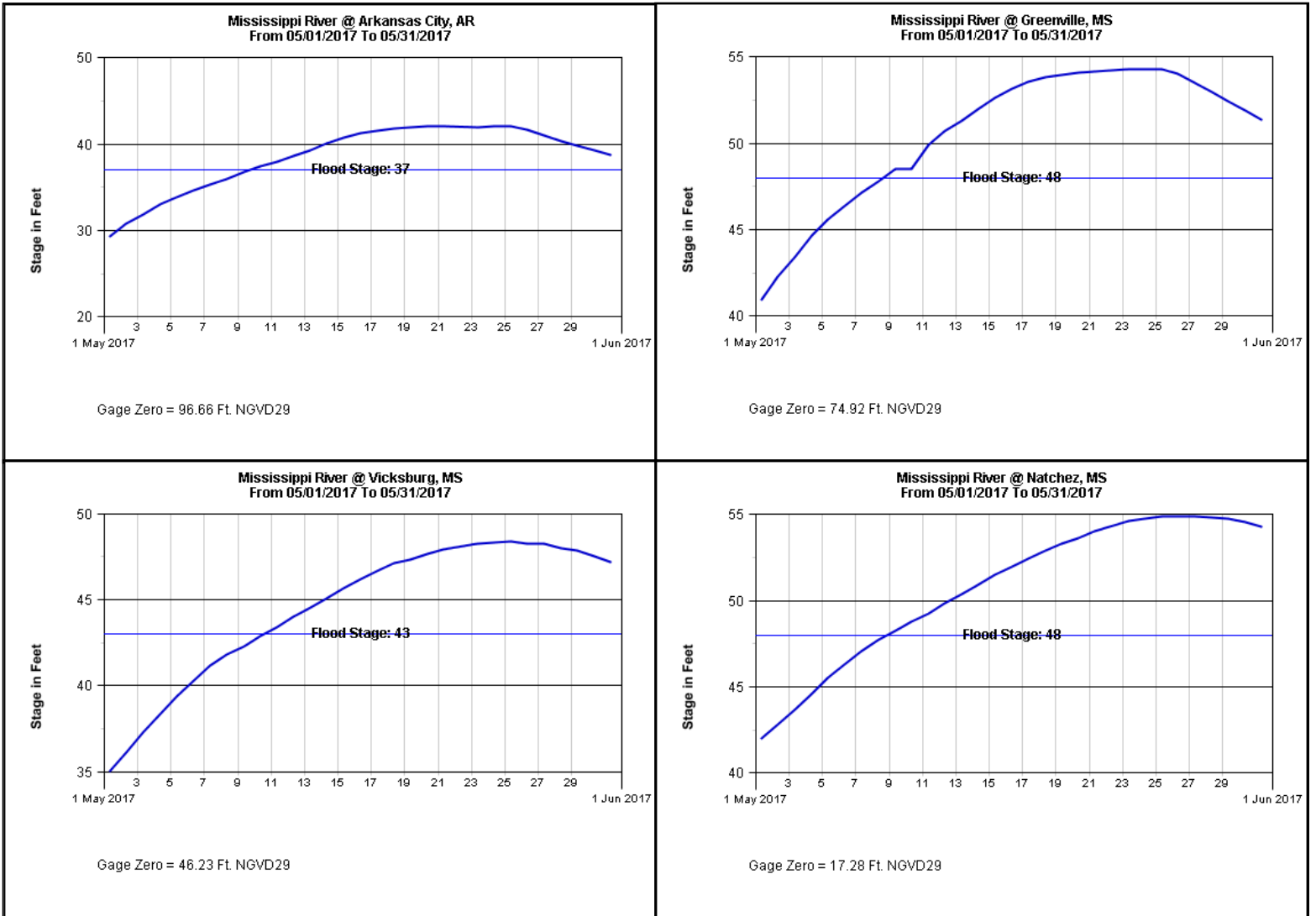
Tombigbee River System: Normal.

Mississippi River: Normal.

# Mississippi River Plots May 2017

## Plots Courtesy of the United States Army Corps of Engineers

### Monthly Preliminary High and Low Stages:



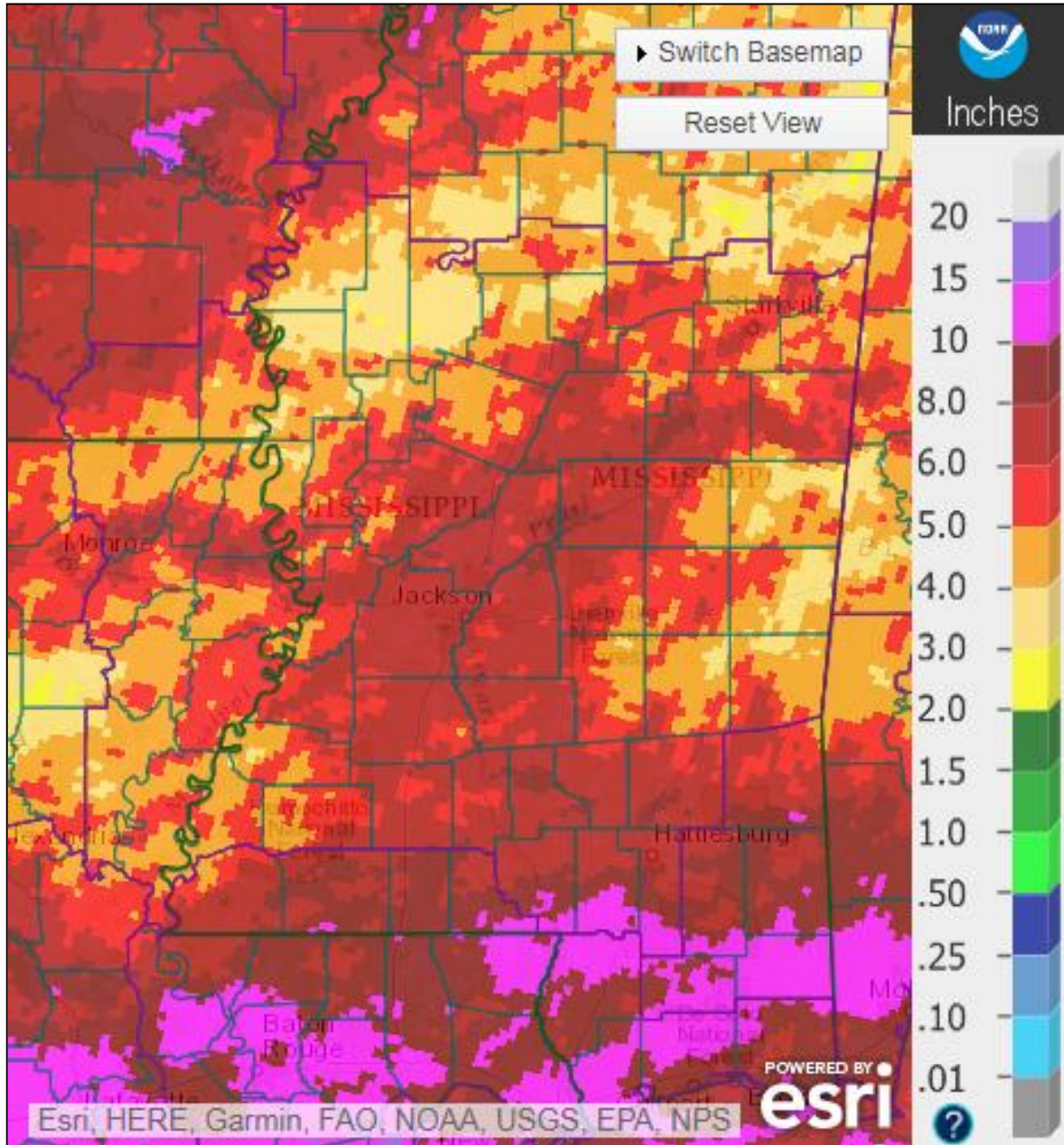
Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	42.14	05/23	29.32	05/01
Greenville	48	54.33	05/24	40.96	05/01
Vicksburg	43	48.50	05/25	35.05	05/01
Natchez	48	54.91	05/26	42.04	05/01

## Rainfall for the Month of May

During the period from 7 am April 30<sup>th</sup> until 7 am May 31<sup>st</sup>, the largest rainfall amounts from NWS Cooperative Observers were:

**This will be updated at a later time**

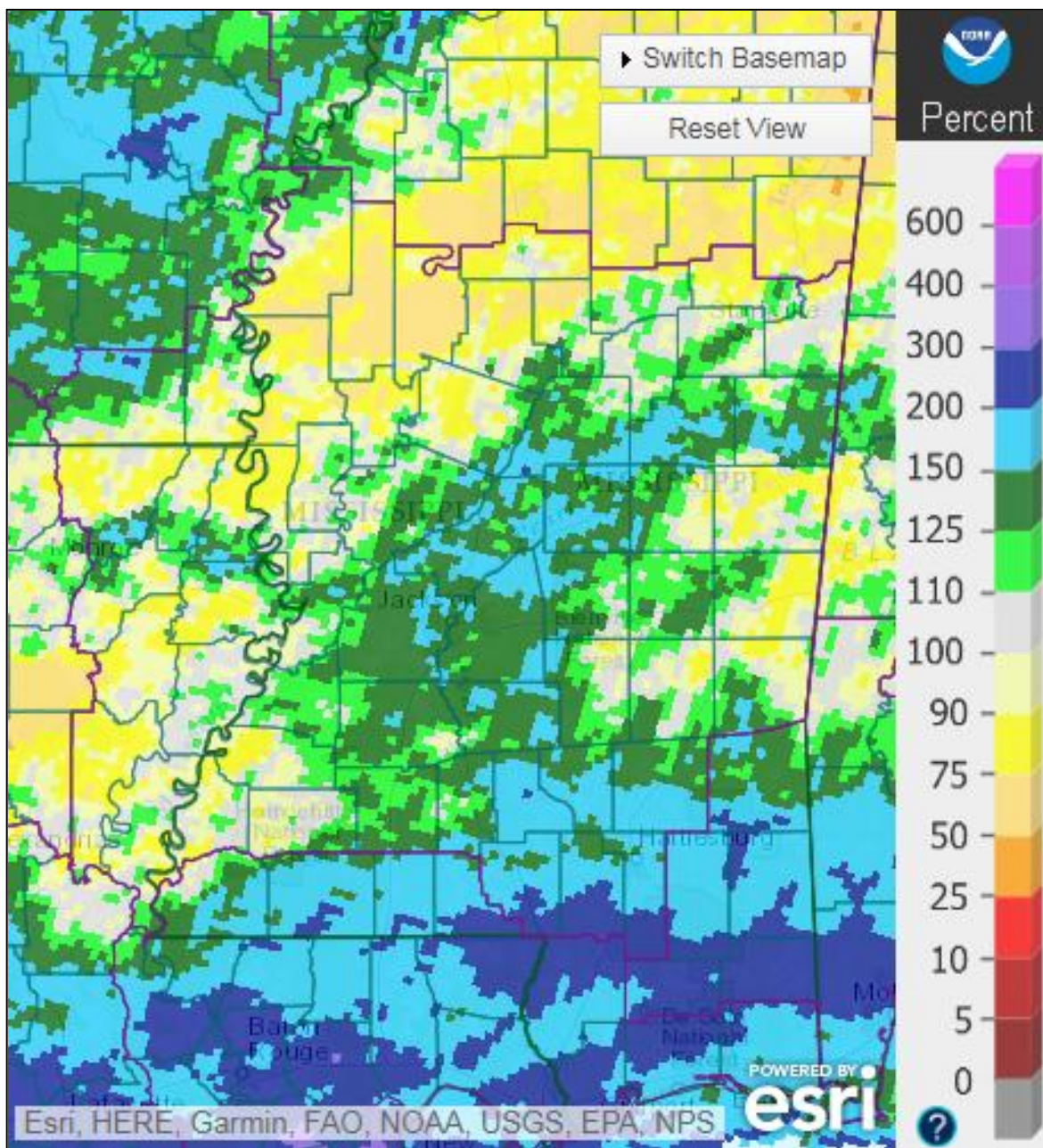
### May Rainfall Estimates:



Note: Observer rainfall and MPE in May may differ due to time differences.



## May Percent of Normal Precipitation:



Note: Observer rainfall and MPE in May may differ due to time differences.

## May Rainfall for Selected Cities:

City (Airport)	Rainfall	Departure from Normal	2017 Rainfall	2017 Departure from Normal
Jackson (KJAN)	6.30	+1.92	31.49	+7.38
Meridian (KMEI)	3.37	-1.13	28.64	+3.21
Hattiesburg (KHBG)	6.81	+1.83	30.43	+3.89
Vicksburg (KTVR)	6.82	+1.86	27.42	+2.12
Greenville (KGLH)	1.12	-3.79	15.81	-8.45
Greenwood (KGWO)	3.23	-1.72	21.44	-1.89

Total Flood Warning products issued: 5  
Total Flood Statement products issued: 128  
Total Flood Advisories MS River: 0  
Daily Climate and Ag WX Products (AGO'S) issued: 31  
Daily CoCoRaHS Rainfall Products (LCO'S) issued: 31  
Daily River and Lake Summary Products (RVD'S) issued: 31

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&  
Anna Wolverton  
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Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District  
USGS Ruston District  
USACE Mobile District  
USACE Vicksburg District  
USACE Mississippi Valley Division  
USGS Mississippi District  
SRH Climate, Weather and Water Division  
Lower Mississippi River Forecast Center  
Pearl River Valley Water Supply District  
Hydrologic Information Center  
Southern Region Climate Center  
Pat Harrison Waterway District  
Pearl River Basin Development District